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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/870,490

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David Ho

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EXAMINER

DANIEL JR, WILLIE J

ART UNIT

PAPER NUMBER

2686

DATE MAILED: 01/08/2004

2

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/870,490

Applicant(s)

HO ET AL.

Examiner

Willie J. Daniel, Jr.

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Oath/Declaration

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

Regarding the **Declaration**, the 1st inventor improperly signed in the “**Post Office Address**” field instead of the “**Signature**” field.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “**ref. 103**” has been used to designate both **STEP "constant pressed?"** and "**show constant**" of Fig. 1. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to because **Fig. 1 STEP "ref. 103" omits the "Y"**. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “**ref. 104**” has been used to designate both **STEP "single-operand operator pressed?"** and "**input operand. perform calculation. show result**". A proposed drawing

Art Unit: 2686

correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to because **Fig. 1 STEP "ref. 105" omits the "N"**. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "**ref. 106**" has been used to designate both **STEP "+, -, x, % pressed?"**, "**show interface of +, -, x, %**", and "**input operand. perform calculation. show result**". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "**ref. 107**" has been used to designate both **STEP "clear button pressed?"** and "**clear**". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
8. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "**ref. 108**" has been used to designate both **STEP "escape button pressed?"** and "**escape button pressed twice?**". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

9. **Claim 1** is objected to because of the following informalities: "**Ref. e**" is associated with two **steps**. Examiner interprets the 2nd step labeled "**Ref. e**" to be "**Reg. g**". Appropriate correction is required.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 7-10 are rejected under 35 U.S.C. 102(e) as being anticipated by **Kraft et al.**
(US 6,487,424).

Regarding **Claim 1**, Kraft et al. discloses a process for performing arithmetic operations and engineering based arithmetic operations in a mobile phone (1) comprising the steps of (see col. 1, lines 8-27, 31-47; col. 12, line 13 - col. 13, line 11; Figs. 1, 2, 5):

(a) storing one or more software in a memory (17b) of the mobile phone (1) (see col. 1 lines 8-27, 31-47; col. 12, lines 28-30; Figs. 1, 5);

(b) selecting one of the software (see col. 1 lines 8-27, 31-47; col. 12, lines 28-30; Figs. 1, 5);

(c) reading an input interface (23) from the memory (17b) of the mobile phone (1) by a controller (18) which hereinafter reads on the claimed “microprocessor” of the mobile phone (1) in response to the selection (see col. 12, lines 13-30; Figs. 2, 5);

(d) showing the input interface (23) on a display (3) of the mobile phone (see col. 12, lines 37-41, 50-56; Fig. 5);

(e) inputting operands and operator (see col. 12, lines 37-41, 50-56; Fig. 5);

(f) performing a calculation on the inputted operands and operator by the microprocessor (18) of the mobile phone (1) (see col. 12, line 60 - col. 13, line 3; Fig. 5); and
(g) showing a result of the calculation on the display (3) of the mobile phone (1) (see col. 12, line 60 - col. 13, line 3; Fig. 5).

Regarding **Claim 2**, Kraft et al. discloses the process of claim 1, wherein the software is an arithmetic operation software (see col. 1, lines 8-27, 31-47; col. 12, lines 13-18), where the software is a calculator performing arithmetic operations.

Regarding **Claim 3**, Kraft et al. discloses the process of claim 2, wherein the arithmetic operation software comprises an input interface (23) in response to a pressed button on a keypad (2) of the mobile phone (1) such that operands and operator are capable of inputting by pressing the corresponding buttons based on the location of the operator in the input interface (23) (see col. 1, lines 8-27, 31-47; col. 12, lines 13 - 18; Fig. 5).

Regarding **Claim 4**, Kraft et al. discloses the process of claim 1, wherein the software is an engineering based arithmetic operation software (see col. 1, lines 8-27, 31-47; col. 12, lines 13-18; col. 12, line 13 - col. 13, line 11; Fig. 5), where the software is a calculator performing engineering based arithmetic operations as done by calculators.

Regarding **Claim 5**, Kraft et al. discloses the process of claim 1, wherein after the step (c) of reading an input interface (23) from the memory (17b) of the mobile phone (1) by a microprocessor (18) of the mobile phone (1) in response to the selection, a menu of the selected software is shown on the display (3) (see col. 12, lines 13-30; Fig. 5).

Regarding **Claim 7**, Kraft et al. discloses the process of claim 5, wherein when one of a plurality of constants on the menu is determined to be selected by the microprocessor (18),

the selected constant is shown on the display (see col.12, lines 37-41; col. 12, line 50 - col. 13, line 13; Fig. 5), where a constant holds a particular value which may be symbols (e.g., numbers or conversion factor symbols).

Regarding **Claim 8**, Kraft et al. discloses the process of claim 5, wherein when one of a plurality of single-operand operators on the menu is determined to be selected by the microprocessor (18), an input of an operand is made and a calculation on the operand and the operator is performed (see col.12, lines 19-41; col. 12, line 50 - col. 13, line 3; Fig. 5), where an operand provides a particular function/operation.

Regarding **Claim 9**, Kraft et al. discloses the process of claim 5, wherein when one of a plurality of double-operand operators on the menu is determined to be selected by the microprocessor (18), an input of operands is made and a calculation on the operands and the operator is performed (see col.12, lines 19-41; col. 12, line 50 - col. 13, line 3; Fig. 5), where an operand provides a particular function/operation..

Regarding **Claim 10**, Kraft et al. discloses the process of claim 9, wherein when the selected single-operand operator is determined to be one of addition, subtraction, multiplication, and division by the microprocessor (18), an input interface (23) including the icons of addition, subtraction, multiplication, and division is shown on the display (3), an input of operands is made, and a calculation on the operands and the operator is performed (see col.12, lines 19-41; col. 12, line 50 - col. 13, line 3; Fig. 5).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Kraft et al. (US 6,487,424)** in view of **Thornton et al. (US 5,870,319)**.

Regarding **Claim 6**, Kraft et al. teaches of using a button (7) to switch between options (modes) to perform different functions or operations (see col. 12, line 28-41). Kraft et al. fails to disclose the options (modes) being radian or degree of trigonometric functions. However, the examiner maintains that the options (modes) being radian or degree of trigonometric functions was well known in the art, as taught by Thornton et al.

In the same field of endeavor, Thornton et al. teaches of having trigonometric functions/operations (see col. 3, lines 34-42; Figs. 1, 2, 4 "145"), where the device is capable of switching between RAD or DEG and performing the functions/operations of each, with particular emphasis on Figs. 1 and 4.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kraft et al. and Thornton et al. to have process wherein when a switch button is determined to be pressed by the microprocessor, a switch between setting an input unit of trigonometric functions as degree and setting an input unit of trigonometric function as radian in the decimal system is made.

The advantage of combining the teachings of Kraft et al. and Thornton et al. to have a computing device with scientific, engineering, statistical, and graphical applications for capturing data from a graph or screen image which can be evaluated by internal applications.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Makela et al. (US 6,047,196) discloses a *Communication Device With Two Modes of Operation* (see col. 6, line 66 - col. 7, line 8; Fig. 2).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willie J. Daniel, Jr. whose telephone number is (703) 305-8636. The examiner can normally be reached on 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-3180.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-5424.

WJD,JR/wjd,jr
30 December 2003

Marsha D. Banks-Harold
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